second bag by applying a reduced pressure to said second bag while weighing said first and second bags by said weighing means so as to control said draining of said spent fluid, and supplying said fresh fluid to said first bag at a predetermined replacement flow rate during said draining of said spent fluid from said patient into said second bag independently of said influence of said reduced pressure.

46. (NEW) The method of claim 45 including applying said reduced pressure to both said first and second bags during said draining of said spent fluid from said patient into said second bag.

47. (NEW) The method of claim 45 including supplying said fresh fluid to said first bag at said predetermined replenishment flow rate by means of a volumetric pump provided at said inlet of said first bag.

48. (NEW) The method of claim 45 wherein said predetermined replenishment flow rate comprises a constant flow rate.

49. (NEW) The method of claim 48 including supplying said fresh fluid to said first bag at said constant flow rate until a predetermined replacement volume of said fresh fluid has been supplied to said first bag.

50. (NEW) The method of claim 45 including controlling said draining of said spent fluid from said patient into said second bag by means of said weighing means by correcting the amount of said spent fluid drained from said patient by the amount of said fresh fluid supplied to said first bag.

51. (NEW) The method of claim 50 including terminating said draining of said spent fluid from said patient into said second bag when a predetermined volume of spent fluid has been drained into said second bag.

52. (NEW) The method of claim 50 including terminating said draining of said spent fluid from said patient into said second bag when a predetermined time period has elapsed

from the start of said draining of said spent fluid from said patient into said second bag.

53. (NEW) The method of claim 50 including terminating said draining of said spent fluid from said patient into said second bag when the rate of flow of said spent fluid into said second bag is below a predetermined flow rate, and including determining said rate of flow of said spent fluid into said second bag by means of said weighing means.

54. (NEW) The method of claim 45 including filling said patient with said fresh fluid from said first bag and emptying said spent fluid from said second bag to a waste receiver by providing a positive pressure to said second bag, wherein said supplying of said fresh fluid to said first bag is carried out during said draining of said spent fluid from said patient into said second bag by pumping said fresh fluid at a predetermined flow rate independent of the influence of said negative pressure on said first bag.

55. (NEW) The method of claim 54 including initiating said supply of said fresh fluid to said first bag during said emptying of said spent fluid from said second bag, and initiating said draining of said spent fluid from said patient after termination of said emptying of said spent fluid from said second bag.

56. (NEW) The method of claim 54 wherein said filling of said patient with said fresh fluid is carried out under a positive pressure in said pressure chamber, said emptying of said spent fluid from said second bag is carried out under a positive pressure in said pressure chamber, and said supply of said fresh fluid to said first bag is carried out during either said emptying of said spent fluid from said second bag or said draining of said spent fluid under the control of a positive displacement pump irrespective of the pressure in said pressure chamber.

57. (NEW) The method of claim 45 including filling said patient with said fresh fluid from said first bag and emptying said spent fluid from said second bag to a waste

receiver by providing an increased pressure to said second bag, wherein said supply of said fresh fluid to said first bag and said draining of said spent fluid from said patient are carried out at least partially simultaneously.

58. (NEW) The method of claim 57 including initiating said supplying of said fresh fluid to said first bag after termination of said filling of said patient with said fresh fluid from said first bag, and continuing said supplying of said fresh fluid to said first bag during said draining of said spent fluid from said patient in said second bag.

59. (NEW) The method of claim 58 including continuing said supplying of said fresh fluid to said first bag during said emptying of said spent fluid from said second bag to said waste receiver.

60. (NEW) The method of claim 45 including heating said fresh fluid to a temperature of about 37°C during said supplying of said fresh fluid to said first bag.

61. (NEW) The method of claim 60 including terminating said supplying of said fresh fluid to said first bag and initiating said filling of said patient with said fresh fluid from said first bag when said temperature of said fresh fluid in said first bag reaches about 37°C.

62. (NEW) Apparatus for peritoneal dialysis comprising a pressure chamber including a first bag including an inlet for retaining a fresh fluid for supply to a patient and a second bag for retaining a spent fluid drained from a patient, weighing means for weighing said first and second bags, draining means for draining said spent fluid into said second bag by applying a negative pressure to said second bag in said pressure chamber under the control of said weighing means, and supply means for supplying said fresh fluid to said first bag, said supply means including a pump for pumping said fresh fluid at a predetermined replenishment flow rate during said draining of said spent fluid into said second bag irrespective of said negative pressure applied to said second bag.

63. (NEW) The apparatus of claim 62 wherein said draining means comprises pressure means for supplying a negative pressure in said pressure chamber.

64. (NEW) The apparatus of claim 62 wherein said supply means comprises a volumetric pump disposed at said inlet of said first bag.

65. (NEW) The apparatus of claim 64 wherein said volumetric pump is adapted to pump said fresh fluid into said first bag at a constant replenishment flow rate.

66. (NEW) The apparatus of claim 65 wherein said volumetric pump is adapted to pump said fresh fluid into said first bag until a predetermined volume has been supplied to said first bag.

67. (NEW) The apparatus of claim 62 wherein said weighing means is adapted to control said draining of said spent fluid into said second bag corrected by said supplying of said fresh fluid to said first bag by said volumetric pump.

68. (NEW) The apparatus of claim 67 including interruption means for interrupting said draining of said spent fluid into said second bag when a predetermined volume of said spent fluid has been drained into said second bag.

69. (NEW) The apparatus of claim 67 including interruption means for interrupting said draining of said spent fluid into said second bag when a predetermined time has elapsed from said initiation of said draining of said spent fluid into said second bag.

70. (NEW) The apparatus of claim 67 including interruption means for interrupting said draining of said second fluid into said second bag when the inlet flow rate of said spent fluid into said second bag is less than a predetermined inlet flow rate, said inlet flow rate determined by said weighing means.

71. (NEW) The apparatus of claim 62 including said weighing means adapted to determine the inlet flow rate of said spent fluid into said second bag based on the change of weight of said combined first and second bags.

72. (NEW) The apparatus of claim 62 including filling means for filling said first bag with said fresh fluid and emptying means for emptying said spent fluid from said second bag to a waste receiver, whereby said supplying of said fresh fluid to said first bag and said draining of said spent fluid from said patient into said second bag are carried out at least partially simultaneously.

73. (NEW) The apparatus of claim 72 including means for initiating said supplying of said fresh fluid to said first bag during said emptying of said spent fluid from said second bag and for initiating said draining of said spent fluid from said patient into said second bag after terminating said emptying of said spent fluid from said second bag.

74. (NEW) The apparatus of claim 72 including pressure control means for controlling said pressure in said chamber whereby said draining of said spent fluid from said patient into said second bag is carried out under a negative pressure, said filling of said patient with said fresh fluid from said first bag is carried out under a positive pressure, said emptying of said spent fluid from said second bag to said waste receiver is carried out under a positive pressure, and said supplying of said fresh fluid to said first bag is carried out during either said emptying of said spent fluid from said second bag or said draining of said spent fluid from said patient into said second bag under control of a positive displacement pump irrespective of said pressure in said pressure chamber.

75. (NEW) The apparatus of claim 72 including means for initiating said supplying of said fresh fluid to said first bag after termination of said filling of said patient with said fresh fluid and for continuing said supplying of said fresh fluid to said first bag during said draining of said spent fluid from said patient.

76. (NEW) The apparatus of claim 75 wherein said including means includes means for continuing said supplying of said fresh fluid to said first bag during said emptying of said spent fluid from said second bag.

77. (NEW) The apparatus of claim 62 including heating means for heating said fresh fluid in said first bag to a temperature of about 37°C.

78. (NEW) The apparatus of claim 77 including means for terminating said supplying of said fresh fluid to said first bag and for initiating said filling of said patient with said fresh fluid from said first bag when said temperature reaches about 37°C.

79. (NEW) The apparatus of claim 62 including valve means for controlling the fluid flow to and from said first and second bags.

80. (NEW) The apparatus of claim 79 wherein said valve means comprises a first valve for controlling the flow of said fresh fluid into said first bag, a second valve for controlling the flow of said fresh fluid from said first bag to said patient, a third valve for controlling the flow of said spent fluid into said second bag, and a fourth valve for controlling the flow of said spent fluid out of said second bag.

81. (NEW) The apparatus of claim 80 including valve control means for opening said first valve only when said second valve is closed.

82. (NEW) The apparatus of claim 80 including valve control means for opening said third valve only when said second valve and said fourth valve are closed.

83. (NEW) The apparatus of claim 80 including valve control means for opening said third valve only when said fourth valve is closed, and for opening said fourth valve only when said third valve is closed.

84. (NEW) The apparatus of claim 79 including pressure control means for controlling the pressure in said pressure chamber whereby a positive pressure is maintained in said pressure chamber when said second valve and said fourth valve are opened and a negative pressure is maintained in said pressure chamber when said third valve is opened, and either a positive or negative pressure is maintained in said pressure chamber when said first valve is opened.